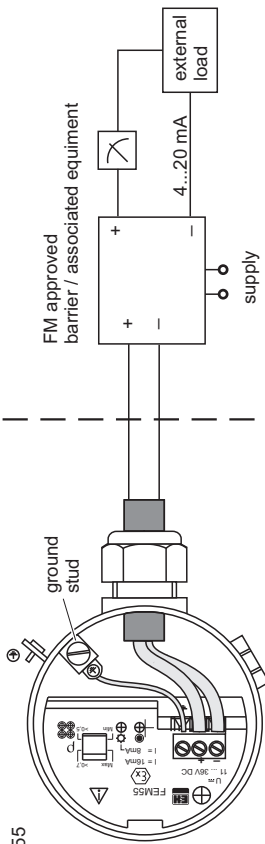


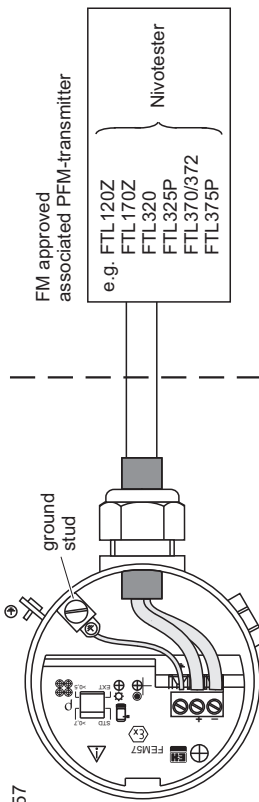
Hazardous classified location

Class I, Div. 1, 2, Groups A, B, C, D
Class I, Zone 0
Class II, Div. 1, 2, Groups E, F, G
Class III

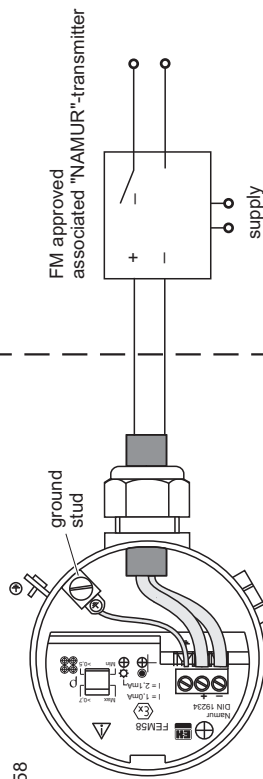
FEM55



FEM57



FEM58



Functional ratings:
These ratings do not supersede hazardous location values.

FEM55:
Unom = 11...36 VDC
Inom = 4...20 mA

FEM57:
Unom = 9.5...12.5 VDC
Inom = 10...13 mA

FEM58:
Unom = 8.2 VDC ±20%
Inom = 0.4...4.8 mA

Non hazardous location

Intrinsically safe (entity), Class I, Div. 1, Groups A, B, C, D Hazardous Location Installations

- Control room equipment may not use or generate over 250 Vrms.
- Wire all circuits for power supply per NEC ANSI/NFPA 70 and ISA RP 12.06.01.
- Use entity approved safety barrier or other associated equipment that satisfy the following conditions: $V_{oc} \leq V_{max}$, $I_{sc} \geq I_{max}$, $C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$.
Transmitter entity parameter are as follows:
FEM55 insert:
Entity parameters:
 $V_{max} \leq 36$ V
 $I_{max} \leq 100$ mA
 $P_i \leq 1$ W
 $C_i \approx 0$
 $L_i \approx 0$
FEM57 insert:
Entity parameters:
 $V_{max} \leq 16.7$ V
 $I_{max} \leq 150$ mA
 $P_i \leq 1$ W
 $C_i \approx 0$
 $L_i \approx 0$
FEM58 insert:
Entity parameters:
 $V_{max} \leq 18$ V
 $I_{max} \leq 52$ mA
 $P_i \leq 170$ mW
 $C_i \approx 0$
 $L_i \approx 0$
- WARNING: Substitution of components may impair intrinsic safety.
- Ex ia is defined as intrinsically safe.
- Use supply wires suitable for 5°C above surrounding ambient.
- Single seal device per ANSI/ISA 12.27.01. Installation of a secondary process seal is not required.

Division 2 and Zone 2 installation

- Installation shall be in accordance with NEC using threaded conduit or other wiring methods in accordance with articles 500 to 510.
- Nonincendive field wiring installation
The nonincendive field wiring circuit concept allows interconnection of nonincendive field wiring apparatus with associated nonincendive field wiring apparatus or associated apparatus not specifically examined in combination as a system using any of the wiring $V_{max} \geq V_{oc}$ or V_t , $C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$.
Transmitter parameters are as follows:
FEM55 insert:
(current controlled circuit)
NIFW Parameters:
 $V_{max} \leq 36$ V
 $I_{max} \leq$ see note 9
 $P_i \leq 1$ W
 $C_i \approx 0$
 $L_i \approx 0$
FEM57 insert:
(voltage controlled circuit)
NIFW Parameters:
 $V_{max} \leq 16.7$ V
 $I_{max} \leq$ see note 9
 $P_i \leq 1$ W
 $C_i \approx 0$
 $L_i \approx 0$
FEM58 insert:
(voltage controlled circuit) + NAMUR housing compact
NIFW Parameters:
 $V_{max} \leq 18$ V
 $I_{max} \leq$ see note 9
 $P_i \leq 170$ mW
 $C_i \approx 0$
 $L_i \approx 0$
- For these current and voltage controlled circuits, the parameters I_{max} is not required and need not to be aligned with parameters I_{sc} and I_t of the associated nonincendive field wiring or associated apparatus.
- WARNING: Explosion hazard - Substitution of components may impair suitability for Class I, Division 2 or Class I, Zone 2.
- Single seal device per ANSI/ISA 12.27.01. Installation of a secondary process seal is not required.

Class II, III installation (without barrier)

- Installation of transmitter circuit wiring according to NEC using threaded conduit or other wiring methods in accordance with articles 500 to 510.
- Single seal device per ANSI/ISA 12.27.01. Installation of a secondary process seal is not required.

XA01337F-C/00/EN/01.14
CCS/FM10
FM/C 18.12.13



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FM Control Drawing 960007248 C

Soliphant M FTM50, FTM51, FTM52
ENTITY Installation (IS, NI)
Current output PFM, NAMUR

Endress+Hauser
People for Process Automation

